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                 now available on STN
                 IFIPAT, IFICDB, and IFIUDB have been reloaded
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NEWS 21
         Aug 19
                 The MEDLINE file segment of TOXCENTER has been reloaded
NEWS 22
         Aug 26
                 Sequence searching in REGISTRY enhanced
NEWS 23
         Sep 03
                 JAPIO has been reloaded and enhanced
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                 Experimental properties added to the REGISTRY file
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                 EVENTLINE has been reloaded
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                 Nutraceuticals International (NUTRACEUT) now available on
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NEWS 32 Nov 18 DKILIT has been renamed APOLLIT
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              AND CURRENT DISCOVER FILE IS DATED 01 OCTOBER 2002
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=> s ophthalmic or eye

17131 OPHTHALMIC

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134100 EYE

40017 EYES

154274 EYE

(EYE OR EYES)

L1 163839 OPHTHALMIC OR EYE

=> s ubiquinone or q10 or (coenzyme q)

3768 UBIQUINONE

353 UBIQUINONES

3912 UBIQUINONE

(UBIQUINONE OR UBIQUINONES)

3211 Q10

33454 COENZYME

1869 COENZYMES

34755 COENZYME

(COENZYME OR COENZYMES)

37414 Q

1950 COENZYME Q

(COENZYME(W)Q)

L2 8165 UBIQUINONE OR Q10 OR (COENZYME Q)

=> s l1 and l2

=> d ti 1-42

- L3 ANSWER 1 OF 42 BIOSIS COPYRIGHT 2002 BIOLOGICAL ABSTRACTS INC.
- TI Phosphatidylglycerol potently protects human retinal pigment epithelial cells against apoptosis induced by A2E, a compound suspected to cause age-related macula degeneration.
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- TI Epilepsy, EEG abnormalities, and sleep pattern in Mitochondrial Encephalomyopathies.
- L3 ANSWER 3 OF 42 BIOSIS COPYRIGHT 2002 BIOLOGICAL ABSTRACTS INC.
- TI Statins, fibrates, and ocular myasthenia.
- L3 ANSWER 4 OF 42 BIOSIS COPYRIGHT 2002 BIOLOGICAL ABSTRACTS INC.
- TI Alarming atrioventricular block and mitral valve prolapse in the Kearns-Sayre syndrome.
- L3 ANSWER 5 OF 42 BIOSIS COPYRIGHT 2002 BIOLOGICAL ABSTRACTS INC.
- TI Prediction by FISH analysis of the occurrence of Wilms tumor in aniridia patients.
- L3 ANSWER 6 OF 42 BIOSIS COPYRIGHT 2002 BIOLOGICAL ABSTRACTS INC.
- TI Inborn errors of complex II: Unusual human mitochondrial diseases.
- L3 ANSWER 7 OF 42 BIOSIS COPYRIGHT 2002 BIOLOGICAL ABSTRACTS INC.
- TI The expanding spectrum of nuclear gene mutations in mitochondrial disorders.
- L3 ANSWER 8 OF 42 BIOSIS COPYRIGHT 2002 BIOLOGICAL ABSTRACTS INC.
- TI alpha-Tocopherol/lipid ratio in blood is decreased in patients with Leber's hereditary optic neuropathy and asymptomatic carriers of the 11778

mtDNA mutation.

- L3 ANSWER 9 OF 42 BIOSIS COPYRIGHT 2002 BIOLOGICAL ABSTRACTS INC.
- TI The mitochondrial ND6 gene is a hot spot for mutations that cause Leber's hereditary optic neuropathy.
- L3 ANSWER 10 OF 42 BIOSIS COPYRIGHT 2002 BIOLOGICAL ABSTRACTS INC.
- TI Does coenzyme **Q10** play a role in opposing oxidative stress in patients with age-related macular degeneration.
- L3 ANSWER 11 OF 42 BIOSIS COPYRIGHT 2002 BIOLOGICAL ABSTRACTS INC.
- TI Alpha-methylacyl-CoA racemase deficiency: AMACR (Massion-Verniory syndrome.
- L3 ANSWER 12 OF 42 BIOSIS COPYRIGHT 2002 BIOLOGICAL ABSTRACTS INC.
- TI Transient improvement of pyruvate metabolism after coenzyme Q therapy in Kearns-Sayre syndrome: MRS study.
- L3 ANSWER 13 OF 42 BIOSIS COPYRIGHT 2002 BIOLOGICAL ABSTRACTS INC.
- TI Cultured corneal keratocyte apoptosis induced by UV radiation is prevented

by **ubiquinone** Q-10.

- L3 ANSWER 14 OF 42 BIOSIS COPYRIGHT 2002 BIOLOGICAL ABSTRACTS INC.
- TI Behcet's disease associated with myelodysplastic syndrome: A case report.

- L3 ANSWER 15 OF 42 BIOSIS COPYRIGHT 2002 BIOLOGICAL ABSTRACTS INC.
- TI Vitamin E and coenzyme Q concentrations in the thyroid tissues of patients with various thyroid disorders.
- L3 ANSWER 16 OF 42 BIOSIS COPYRIGHT 2002 BIOLOGICAL ABSTRACTS INC.
- TI Coordinate induction of energy gene expression in tissues of mitochondrial

disease patients.

- L3 ANSWER 17 OF 42 BIOSIS COPYRIGHT 2002 BIOLOGICAL ABSTRACTS INC.
- TI Functional consequences of the 3460-bp mitochondrial DNA mutation associated with Leber's hereditary optic neuropathy.
- L3 ANSWER 18 OF 42 BIOSIS COPYRIGHT 2002 BIOLOGICAL ABSTRACTS INC.
- TI Modulation of oxidative stress in human skin of old donors.
- L3 ANSWER 19 OF 42 BIOSIS COPYRIGHT 2002 BIOLOGICAL ABSTRACTS INC.
- TI Biochemical features of mtDNA 14484 (ND6/M64V) point mutation associated with Leber's hereditary optic neuropathy.
- L3 ANSWER 20 OF 42 BIOSIS COPYRIGHT 2002 BIOLOGICAL ABSTRACTS INC.
- TI The nuoM arg368his mutation in NADH: ubiquinone oxidoreductase from Rhodobacter capsulatus: A model for the human nd4-11778 mtDNA mutation associated with Leber's hereditary optic neuropathy.
- L3 ANSWER 21 OF 42 BIOSIS COPYRIGHT 2002 BIOLOGICAL ABSTRACTS INC.
- TI Analysis of the pathogenic human mitochondrial mutation ND1/3460, and mutations of strictly conserved residues in its vicinity, using the bacterium Paracoccus denitrificans.
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- TI Diagnostic programme for respiratory chain diseases in Russia.
- L3 ANSWER 23 OF 42 BIOSIS COPYRIGHT 2002 BIOLOGICAL ABSTRACTS INC.
- TI Human complex I defects in neurodegenerative diseases.
- L3 ANSWER 24 OF 42 BIOSIS COPYRIGHT 2002 BIOLOGICAL ABSTRACTS INC.
- TI Human complex I deficiency: Clinical spectrum and involvement of oxygen free radicals in the pathogenicity of the defect.
- L3 ANSWER 25 OF 42 BIOSIS COPYRIGHT 2002 BIOLOGICAL ABSTRACTS INC.
- TI Changes in mitochondrial complex I activity and coenzyme **Q** binding site in Leber's hereditary optic neuropathy (LHON.
- L3 ANSWER 26 OF 42 BIOSIS COPYRIGHT 2002 BIOLOGICAL ABSTRACTS INC.
- ${\tt TI}$   $\,$  Mutation analysis of the ND6 gene in patients with Lebers hereditary optic

neuropathy.

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- TI Thermally-induced changes in the metabolism of the **eye** of the crayfish Paranephrops planifrons: Respiration and substrate utilization

at three distinct temperatures.

- L3 ANSWER 28 OF 42 BIOSIS COPYRIGHT 2002 BIOLOGICAL ABSTRACTS INC.
- TI NADH-coenzyme Q reductase (complex I) deficiency: Heterogeneity in phenotype and biochemical findings.

- L3 ANSWER 29 OF 42 BIOSIS COPYRIGHT 2002 BIOLOGICAL ABSTRACTS INC.
- TI Mitochondrial NADH-coenzyme Q reductase deficiency in Leigh's disease.
- L3 ANSWER 30 OF 42 BIOSIS COPYRIGHT 2002 BIOLOGICAL ABSTRACTS INC.
- TI Improvement of Kearns-Sayre syndrome with controlled carbohydrate intake and coenzyme Q-10 therapy.
- L3 ANSWER 31 OF 42 BIOSIS COPYRIGHT 2002 BIOLOGICAL ABSTRACTS INC.
- TI An unusual patient with the neonatal Marfan phenotype and mitochondrial complex I deficiency.
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- TI A case of Kearns-Shy syndrome with later onset.
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- TI THE PROPERTIES OF PHOTORECONVERTIBLE FLUOROPHORE SYSTEMS IN INSECT EYES RESEMBLE THOSE OF QUINONES.
- L3 ANSWER 34 OF 42 BIOSIS COPYRIGHT 2002 BIOLOGICAL ABSTRACTS INC.
- TI EFFECT OF COENZYME Q-10 ON HEMODYNAMIC RESPONSE TO OCULAR TIMOLOL.
- L3 ANSWER 35 OF 42 BIOSIS COPYRIGHT 2002 BIOLOGICAL ABSTRACTS INC.
- TI THE INFLUENCE OF TEMPERATURE AND OXYGEN ON THE PHOTOMECHANICAL SYSTEM OF THE MEAL MOTH EYE.
- L3 ANSWER 36 OF 42 BIOSIS COPYRIGHT 2002 BIOLOGICAL ABSTRACTS INC.
- TI ANESTHESIA FOR **EYE** SURGERY IN CASES OF MITOCHONDRIAL ENCEPHALOMYOPATHY.
- L3 ANSWER 37 OF 42 BIOSIS COPYRIGHT 2002 BIOLOGICAL ABSTRACTS INC.
- TI TEMPERATURE DEPENDENCE DARK ADAPTATION AND THE DYNAMICS OF PHOTOTRANSDUCTION IN DIPTERAN PHOTORECEPTORS.
- L3 ANSWER 38 OF 42 BIOSIS COPYRIGHT 2002 BIOLOGICAL ABSTRACTS INC.
- TI RESPONSES OF NONDIAPAUSING FLESH FLIES DIPTERA SARCOPHAGIDAE TO LOW REARING TEMPERATURES DEVELOPMENTAL RATE COLD TOLERANCE AND GLYCEROL CONCENTRATIONS.
- L3 ANSWER 39 OF 42 BIOSIS COPYRIGHT 2002 BIOLOGICAL ABSTRACTS INC.
- TI CLOSED-LID FACTORS INFLUENCING HUMAN CORNEAL OXYGEN DEMAND.
- L3 ANSWER 40 OF 42 BIOSIS COPYRIGHT 2002 BIOLOGICAL ABSTRACTS INC.
- TI EXPERIMENTAL STUDIES ON ANTIOXIDATIVE EFFECT OF COENZYME Q-10 ON THE RETINA.
- L3 ANSWER 41 OF 42 BIOSIS COPYRIGHT 2002 BIOLOGICAL ABSTRACTS INC.
- TI SPECTRAL SENSITIVITY IN INSECT CALLIPHORO-ERYTHROCEPHALA PHOTORECEPTORS AT
  - A RANGE OF TEMPERATURES.
- L3 ANSWER 42 OF 42 BIOSIS COPYRIGHT 2002 BIOLOGICAL ABSTRACTS INC.
- TI CIRCADIAN RHYTHM OF OUTPUT FROM NEURONS IN THE EYE OF APLYSIA PART 2 EFFECTS OF DEUTERIUM OXIDE AND TEMPERATURE.
- => d bib ab 1 10 13 34 40
- L3 ANSWER 1 OF 42 BIOSIS COPYRIGHT 2002 BIOLOGICAL ABSTRACTS INC.

AN 2002:574673 BIOSIS

DN PREV200200574673

TI Phosphatidylglycerol potently protects human retinal pigment epithelial cells against apoptosis induced by A2E, a compound suspected to cause age-related macula degeneration.

AU Shaban, Hamdy; Borras, Consuelo; Vina, Jose; Richter, Christoph (1)
CS (1) Institute of Biochemistry, Swiss Federal Institute of Technology
(ETH), Universitaetstr. 16, CH-8092, Zurich: richter@bc.biol.ethz.ch
Switzerland

SO Experimental Eye Research, (July, 2002) Vol. 75, No. 1, pp. 99-108. http://www.academicpress.com/eer. print. ISSN: 0014-4835.

DT Article

LA English

AB Age-related macular degeneration (AMD) affects about one fifth of the population older than 65 years and is one of the main causes of poor vision in the elderly in industrialized nations. The endogenous

lipophilic

and cationic compound N-retinyl-N-retinylidene ethanolamine (A2E) is suspected to cause the dry form of the disease, which currently cannot be treated. The authors recently reported that A2E induces apoptosis in several cell types including porcine retinal pigment epithelial cells, detaches proapoptotic proteins from mitochondria, and inhibits cytochrome c oxidase. A2E acts primarily at the level of cardiolipin/cytochrome c oxidase, which in the light becomes permanently inactivated by A2E. The authors now report that A2E at low concentrations causes apoptosis in cultured human retinal pigment epithelial cells. These cells are more sensitive to A2E in the light than in the dark. Phosphatidylglycerol, a negatively charged phospholipid and immediate biosynthetic precursor of cardiolipin readily inhibits apoptosis. Exposure of cells to A2E results in the formation of reactive oxygen and nitrogen species, and exposure of mitochondria to A2E results in oxidative stress. Accordingly, the potent antioxidant coenzyme Q also protects cells against A2E-induced apoptosis. These findings are highly relevant for the treatment and/or prevention of AMD.

L3 ANSWER 10 OF 42 BIOSIS COPYRIGHT 2002 BIOLOGICAL ABSTRACTS INC.

AN 2001:64412 BIOSIS

DN PREV200100064412

TI Does coenzyme Q10 play a role in opposing oxidative stress in patients with age-related macular degeneration.

AU Blasi, Maria Antonietta; Bovina, Carla; Carella, Giuseppe; Genova, Maria Luisa; Jansen, Anna M. A.; Lenaz, Giorgio; Brancato, Rosario (1)

CS (1) Department of Ophthalmology and Visual Science, San Raffaele Hospital,

University of Milano, Via Olgettina 60, I-20132, Milano: brancato.rosario@hsr.it Italy

SO Ophthalmologica, (January February, 2001) Vol. 215, No. 1, pp. 51-54. print.

ISSN: 0030-3755.

DT Article

LA English

SL English

CoO10

AB To seek some specific biochemical markers of age-related macular degeneration (AMD), coenzyme Q10 (CoQ10) levels were determined in plasma and platelets from 19 exudative AMD patients and 19 age-matched controls. Lipid peroxidation was followed in plasma in vitro after the addition of a free radical initiator. Most patients had lower plasma

content than most controls. Plasma from controls showed greater capacity

S. G. S.

to oppose the oxidative damage. These results support the concept that free radicals play a pathogenic role in AMD and that CoQ10 may have a protective effect.

L3 ANSWER 13 OF 42 BIOSIS COPYRIGHT 2002 BIOLOGICAL ABSTRACTS INC.

AN 2000:263378 BIOSIS

DN PREV200000263378

TI Cultured corneal keratocyte apoptosis induced by UV radiation is prevented

by ubiquinone Q-10.

- AU Carella, G. (1); Capaccioli, S.; Brancato, R. (1); Donnini, M.; Lapucci, A.; Papucci, L.; Schiavone, N.; Cutri, M.; Formigli, L.; Orlandini, S. Zecchi
- CS (1) Department of Ophthalmology and Visual Sciences, University Hospital San Raffaele, Milan Italy
- SO IOVS, (March 15, 2000) Vol. 41, No. 4, pp. S697. print..

  Meeting Info.: Annual Meeting of the Association in Vision and
  Opthalmology. Fort Lauderlade, Florida, USA April 30-May 05, 2000

  Association for Research in Vision and Ophthalmology
- DT Conference
- LA English
- SL English
- L3 ANSWER 34 OF 42 BIOSIS COPYRIGHT 2002 BIOLOGICAL ABSTRACTS INC.
- AN 1989:478937 BIOSIS
- DN BA88:114697
- TI EFFECT OF COENZYME Q-10 ON HEMODYNAMIC RESPONSE TO OCULAR TIMOLOL.
- AU TAKAHASHI N; IWASAKA T; SUGIURA T; ONOYAMA H; KURIHARA S; INADA M; MIKI

H; UYAMA M

- CS CCU, KANSAI MED. UNIV. I, FUMIZONO-CHO, MORIGUCHI CITY, OSAKA 70, JPN.
- SO J CARDIOVASC PHARMACOL, (1989) 14 (3), 462-468.
- CODEN: JCPCDT. ISSN: 0160-2446.
- FS BA; OLD
- LA English
- AΒ Coenzyme Q10 (CoQ10) is an essential component of the mitochondrial membrane and plays an important role in the maintenance of normal cardiac function. To evaluate the effects of ocular timolol on the cardiovascular system and determine the protective effect of CoQ10, 16 patients with glaucoma were studied using impedance cardiography. Following instillation of 1 mg timolol maleate in each eye, heart rate (HR) and stroke index (SI) decreased, and total peripheral resistance index (TPRI) increased significantly. Reexamination was performed after 6 weeks of 90 mg oral CoQ10. Despite decreases in HR, percent changes in HR were significantly less after CoQ10 at 120 min. Stroke index showed an initial increase which was not observed without CoQ10. These data suggest that CoQ10 delayed the appearance of inotropic blockade of timolol and hastened the disappearance of chronotropic blockade. Additional study of six normal volunteers with 6 weeks of oral CoQ10 showed a similar decrease of intraocular pressure after timolol instillation as compared to those without CoQ10. Thus, administration of oral CoQ10 in patients receiving ocular timolol may be useful in mitigating cardiovascular side effects without affecting intraocular pressure in the treatment of glaucoma.
- L3 ANSWER 40 OF 42 BIOSIS COPYRIGHT 2002 BIOLOGICAL ABSTRACTS INC.
- AN 1985:421029 BIOSIS
- DN BA80:91021

TI EXPERIMENTAL STUDIES ON ANTIOXIDATIVE EFFECT OF COENZYME Q-10 ON THE RETINA.

AU KUWAYAMA M

CS DEP. OPHTHALMOL., NAGOYA CITY UNIV. MED. SCH., MIZUHO-KU, NAGOYA 467.

SO NAGOYA MED J, (1984 (RECD 1985)) 29 (3-4), 137-148.

CODEN: NMJOAA. ISSN: 0027-7649.

FS BA; OLD

LA English

The lipid peroxide level in the chick retina was examined under various conditions in vitro and in vivo to vertify the antioxidative effect of coenzyme Q10 (CoQ10). The levels of CoQ10 in the retina, liver and heart were 8.4 .mu.g/g, 82.3 .mu.g/g and 74.9 .mu.g/g wet wt, respectively. In the suspension of retina only, CoQ10 exhibited no antioxidative effects, but in the retina mixed with chick heart mitochondria CoQ10 showed marked inhibition of lipid peroxidation as strong as that by dl-.alpha.-tocopherol. CoQ10 can act as an antioxidant in mitochondria; the antioxidative effect of CoQ10 displays organ specificity. Sixty kittens were administered a high concentration (70

1%) of O2 for 48 h from day 3 after birth. In 11 kittens s.c., administered 10 mg of CoQ10 (group A), retinopathy of prematurity (ROP) was detected in 18 of 22 eyes. In 7 kittens receiving an equal volume of a vehicle placebo (group B), ROP was detected in 13 of 14 eyes. There was no significant difference between groups A and B. In 23 kittens given 5 mg of CoQ10 and 12.5 mg of tocopherol acetate (group

C), ROP was seen only in 11 of 46 eyes. In 19 kitten administered an equal volume of a vehicle placebo and 12.5 mg of tocopherol acetate (group D), ROP was seen in 31 of 38 eyes. The retina in which ROP developed showed a high level of lipid peroxide than that in the normal retina.

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Monitoring of the oxidative stress of aging and aging-related diseases

ANSWER 5 OF 123 CAPLUS COPYRIGHT 2002 ACS

L4

ΤI

- L4 ANSWER 6 OF 123 CAPLUS COPYRIGHT 2002 ACS
- TI Pyrimidine nucleotide precursors for the treatment of mitochondrial diseases
- L4 ANSWER 7 OF 123 CAPLUS COPYRIGHT 2002 ACS
- TI Novel antioxidants
- L4 ANSWER 8 OF 123 CAPLUS COPYRIGHT 2002 ACS
- TI Diagnosis and therapy of diseases by detection of single nucleotide polymorphism and cytosine methylation in chemically modified genomic DNA
- L4 ANSWER 9 OF 123 CAPLUS COPYRIGHT 2002 ACS
- TI Epiandrosterones or **ubiquinones** for treatment of asthma and reduction of adenosine/adenosine receptor levels
- L4 ANSWER 10 OF 123 CAPLUS COPYRIGHT 2002 ACS
- TI A regulatory gene for bone strength and mineralization and its use in the diagnosis and treatment of osteoporosis
- L4 ANSWER 11 OF 123 CAPLUS COPYRIGHT 2002 ACS
- TI Leber's Hereditary Optic Neuropathy The Spectrum of Mitochondrial DNA Mutations in Chinese Patients
- L4 ANSWER 12 OF 123 CAPLUS COPYRIGHT 2002 ACS
- TI Proteins and nucleic acids associated with aging and their detection in identification of tissues undergoing senescence and of senescence modulators
- L4 ANSWER 13 OF 123 CAPLUS COPYRIGHT 2002 ACS
- TI Topical pharmaceutical composition containing water-insoluble and/or sparingly water-soluble drugs
- L4 ANSWER 14 OF 123 CAPLUS COPYRIGHT 2002 ACS
- TI Topical micronutrient delivery system using esters
- L4 ANSWER 15 OF 123 CAPLUS COPYRIGHT 2002 ACS
- TI Meso-zeaxanthin formulations for treatment of retinal disorders
- L4 ANSWER 16 OF 123 CAPLUS COPYRIGHT 2002 ACS
- TI Reduced form of **coenzyme Q** in highly bioavailable stable dosage forms
- L4 ANSWER 17 OF 123 CAPLUS COPYRIGHT 2002 ACS
- TI Local synthesis of nuclear-encoded mitochondrial proteins in the presynaptic nerve terminal
- L4 ANSWER 18 OF 123 CAPLUS COPYRIGHT 2002 ACS
- TI **Ubiquinone Q10** for a local treatment and prevention of ophthalmological pathologies following photorefractive therapy, refractive

surgery and exposure to ultraviolet radiation

- L4 ANSWER 19 OF 123 CAPLUS COPYRIGHT 2002 ACS
- TI Oil-in-water emulsion compositions for polyfunctional active ingredients
- L4 ANSWER 20 OF 123 CAPLUS COPYRIGHT 2002 ACS
- TI Pharmaceutically active carotenoids
- L4 ANSWER 21 OF 123 CAPLUS COPYRIGHT 2002 ACS
- TI A pharmaceutical composition for stabilising atherosclerotic plaques

ANSWER 22 OF 123 CAPLUS COPYRIGHT 2002 ACS T.4 ΤI Does coenzyme Q10 play a role in opposing oxidative stress in patients with age-related macular degeneration? ANSWER 23 OF 123 CAPLUS COPYRIGHT 2002 ACS T.4 Pharmaceutical and nutritional compositions containing essential fatty TI acids and homocysteine-lowering agents ANSWER 24 OF 123 CAPLUS COPYRIGHT 2002 ACS **L4** Functional analysis of lymphoblast and cybrid mitochondria containing the ΤI 3460, 11778, or 14484 Leber's hereditary optic neuropathy mitochondrial DNA mutation ANSWER 25 OF 123 CAPLUS COPYRIGHT 2002 ACS L4Expanded polyglutamines induce neurodegeneration and trans-neuronal TΙ alterations in cerebellum and retina of SCA7 transgenic mice ANSWER 26 OF 123 CAPLUS COPYRIGHT 2002 ACS T.4 Treatment, imaging and diagnosis of disease using an agent which binds TТ .alpha.5-integrin ANSWER 27 OF 123 CAPLUS COPYRIGHT 2002 ACS L4Methods for identifying agents that inhibit serum aging factors (NADH  $\mathtt{TI}$ oxidase) and uses and compositions thereof ANSWER 28 OF 123 CAPLUS COPYRIGHT 2002 ACS L4Late-onset optic atrophy, ataxia, and myopathy associated with a mutation ΤI of a complex II gene ANSWER 29 OF 123 CAPLUS COPYRIGHT 2002 ACS L4Pharmaceutical, dietetic and cosmetic compositions based on tioctic acid ΤI and cysteine ANSWER 30 OF 123 CAPLUS COPYRIGHT 2002 ACS L4Methods using pyrimidine-based nucleosides for treatment of mitochondrial TI disorders ANSWER 31 OF 123 CAPLUS COPYRIGHT 2002 ACS L4 Combined dehydroepiandrosterone and retinoid therapy for epithelial ΤI disorders ANSWER 32 OF 123 CAPLUS COPYRIGHT 2002 ACS L4 Low brain intracellular free magnesium in mitochondrial cytopathies ΤI ANSWER 33 OF 123 CAPLUS COPYRIGHT 2002 ACS Defined serum-free medical solution for ophthalmology ΤI ANSWER 34 OF 123 CAPLUS COPYRIGHT 2002 ACS **Ubiquinone**-containing composition suitable for promoting TI enhanced intramitochondrial transport ANSWER 35 OF 123 CAPLUS COPYRIGHT 2002 ACS L4Mitochondrial DNA mutations in complex I and tRNA genes in Parkinson's ΤI disease ANSWER 36 OF 123 CAPLUS COPYRIGHT 2002 ACS Glutamate-mediated inhibition of oxidative phosphorylation in cultured TTretinal cells

- L4 ANSWER 37 OF 123 CAPLUS COPYRIGHT 2002 ACS
- TI The mitochondrial DNA G13513A transition in ND5 is associated with a LHON/MELAS overlap syndrome and may be a frequent cause of MELAS
- L4 ANSWER 38 OF 123 CAPLUS COPYRIGHT 2002 ACS
- TI Familial multisystem degeneration with parkinsonism associated with the 11778 mitochondrial DNA mutation
- L4 ANSWER 39 OF 123 CAPLUS COPYRIGHT 2002 ACS
- TI In vitro testing of antioxidants and biochemical end-points in bovine retinal tissue
- L4 ANSWER 40 OF 123 CAPLUS COPYRIGHT 2002 ACS
- TI Leber's hereditary optic neuropathy: clinical and molecular genetic findings in a patient with a new mutation in the ND6 gene
- L4 ANSWER 41 OF 123 CAPLUS COPYRIGHT 2002 ACS
- TI Novel mutations of mitochondrial complex I in pathologically proven Parkinson disease
- L4 ANSWER 42 OF 123 CAPLUS COPYRIGHT 2002 ACS
- TI Coordinate induction of energy gene expression in tissues of mitochondrial disease patients
- L4 ANSWER 43 OF 123 CAPLUS COPYRIGHT 2002 ACS
- TI Functional consequences of the 3460-bp mitochondrial DNA mutation associated with Leber's hereditary optic neuropathy
- L4 ANSWER 44 OF 123 CAPLUS COPYRIGHT 2002 ACS
- TI Titrating the effects of mitochondrial complex I impairment in the cell physiology
- L4 ANSWER 45 OF 123 CAPLUS COPYRIGHT 2002 ACS
- TI Improved personal care formulations containing amphiphilic phospholipid carriers for topical mucosal applications
- L4 ANSWER 46 OF 123 CAPLUS COPYRIGHT 2002 ACS
- TI Biochemical features of mtDNA 14484 (ND6/M64V) point mutation associated with Leber's hereditary optic neuropathy
- L4 ANSWER 47 OF 123 CAPLUS COPYRIGHT 2002 ACS
- TI Oral liposomal delivery system

- L4 ANSWER 48 OF 123 CAPLUS COPYRIGHT 2002 ACS
- TI Nitrosylation to inactivate apoptotic enzymes, and therapeutic caspase-like peptide
- L4 ANSWER 49 OF 123 CAPLUS COPYRIGHT 2002 ACS
- TI Compositions and methods for prevention and treatment of vascular degenerative diseases
- L4 ANSWER 50 OF 123 CAPLUS COPYRIGHT 2002 ACS
- TI Analysis of the Pathogenic Human Mitochondrial Mutation ND1/3460, and Mutations of Strictly Conserved Residues in Its Vicinity, Using the Bacterium Paracoccus denitrificans
- L4 ANSWER 51 OF 123 CAPLUS COPYRIGHT 2002 ACS
- TI The nuoM arg368his mutation in NADH:ubiquinone oxidoreductase from Rhodobacter capsulatus: a model for the human nd4-11778 mtDNA

mutation associated with Leber's hereditary optic neuropathy

- L4 ANSWER 52 OF 123 CAPLUS COPYRIGHT 2002 ACS
- TI Mitochondrial gene defect in patients with chronic progressive external ophthalmoplegia
- L4 ANSWER 53 OF 123 CAPLUS COPYRIGHT 2002 ACS
- TI Exhaustive scanning approach to screen all the mitochondrial tRNA genes for mutations and its application to the investigation of 35 independent patients with mitochondrial disorders
- L4 ANSWER 54 OF 123 CAPLUS COPYRIGHT 2002 ACS
- TI Multiple mtDNA deletions features in autosomal dominant and recessive diseases suggest distinct pathogeneses
- L4 ANSWER 55 OF 123 CAPLUS COPYRIGHT 2002 ACS
- TI Plus/minus screening of rabbit corneal endothelial cDNA library
- L4 ANSWER 56 OF 123 CAPLUS COPYRIGHT 2002 ACS
- TI Sporadic heteroplasmic single 5.5 kb mitochondrial DNA deletion associated

with cerebellar ataxia, hypogonadotropic hypogonadism, choroidal dystrophy, and mitochondrial respiratory chain complex I deficiency

- L4 ANSWER 57 OF 123 CAPLUS COPYRIGHT 2002 ACS
- TI Leber's hereditary optic neuropathy: biochemical effect of 11778/ND4 and 3460/ND1 mutations and correlation with the mitochondrial genotype
- L4 ANSWER 58 OF 123 CAPLUS COPYRIGHT 2002 ACS
- TI Mutation analysis of the ND6 gene in patients with Lebers hereditary optic

neuropathy

- L4 ANSWER 59 OF 123 CAPLUS COPYRIGHT 2002 ACS
- TI Haplotype and phylogenetic analyses suggest that one European-specific mtDNA background plays a role in the expression of Leber hereditary optic neuropathy by increasing the penetrance of the primary mutations 11778

and

14484

- L4 ANSWER 60 OF 123 CAPLUS COPYRIGHT 2002 ACS
- TI Thermally-induced changes in the metabolism of the **eye** of the crayfish Paranephrops planifrons: respiration and substrate utilization

at three distinct temperatures

- L4 ANSWER 61 OF 123 CAPLUS COPYRIGHT 2002 ACS
- TI Expression of oxidative phosphorylation genes in muscle cell cultures from

patients with mitochondrial myopathies

- L4 ANSWER 62 OF 123 CAPLUS COPYRIGHT 2002 ACS
- TI High dosage lutein and zeaxanthin for macula therapy
- L4 ANSWER 63 OF 123 CAPLUS COPYRIGHT 2002 ACS
- TI Mitochondrial DNA mutations associated with the 11778 mutation in Leber's disease
- L4 ANSWER 64 OF 123 CAPLUS COPYRIGHT 2002 ACS
- TI Sequence of mitochondrial DNA in patients with multiple sclerosis

L4 ANSWER 65 OF 123 CAPLUS COPYRIGHT 2002 ACS

- TI Catalytic activity of Complex I in cell lines that possess replacement mutations in the ND genes in Leber's hereditary optic neuropathy
- L4 ANSWER 66 OF 123 CAPLUS COPYRIGHT 2002 ACS
- TI Respiration and growth defects in transmitochondrial cell lines carrying the 11778 mutation associated with Leber's hereditary optic neuropathy
- L4 ANSWER 67 OF 123 CAPLUS COPYRIGHT 2002 ACS
- TI Defects of the respiratory chain in various tissues of old monkeys: A cytochemical-immunocytochemical study
- L4 ANSWER 68 OF 123 CAPLUS COPYRIGHT 2002 ACS
- TI Genetic and biochemical impairment of mitochondrial complex I activity in a family with Leber hereditary optic neuropathy and hereditary spastic dystonia
- L4 ANSWER 69 OF 123 CAPLUS COPYRIGHT 2002 ACS
- TI Longitudinal study of a heteroplasmic 3460 Leber hereditary optic neuropathy family by multiplexed primer-extension analysis and nucleotide sequencing
- L4 ANSWER 70 OF 123 CAPLUS COPYRIGHT 2002 ACS
- TI Use of transmitochondrial cybrids to assign a complex I defect to the mitochondrial DNA-encoded NADH dehydrogenase subunit 6 gene mutation at nucleotide pair 14459 that causes Leber hereditary optic neuropathy and dystonia
- L4 ANSWER 71 OF 123 CAPLUS COPYRIGHT 2002 ACS
- TI Phylogenetic analysis of Leber's hereditary optic neuropathy mitochondrial
  - DNA's indicates multiple independent occurrences of the common mutations
- L4 ANSWER 72 OF 123 CAPLUS COPYRIGHT 2002 ACS
- TI Preoptic/anterior hypothalamic neurons: thermosensitivity in rapid eye movement sleep
- L4 ANSWER 73 OF 123 CAPLUS COPYRIGHT 2002 ACS
- TI Leber's hereditary optic neuropathy (LHON)-related mitochondrial DNA sequence changes in Italian patients presenting with sporadic bilateral optic neuritis
- L4 ANSWER 74 OF 123 CAPLUS COPYRIGHT 2002 ACS
- TI Effect of diabetes and dietary **ubiquinone** supplementation on the post-translational modification of rat lens .beta.L crystallin
- L4 ANSWER 75 OF 123 CAPLUS COPYRIGHT 2002 ACS
- TI Leber's hereditary optic neuropathy plus dystonia is caused by a mitochondrial DNA point mutation
- L4 ANSWER 76 OF 123 CAPLUS COPYRIGHT 2002 ACS
- TI Fine mapping of randomly distributed multiple deletions of mitochondrial DNA in a case of chronic progressive external ophthalmoplegia
- L4 ANSWER 77 OF 123 CAPLUS COPYRIGHT 2002 ACS
- TI Human diseases with defects in oxidative phosphorylation. 1. Decreased amounts of assembled oxidative phosphorylation complexes in mitochondrial encephalomyopathies

ANSWER 78 OF 123 CAPLUS COPYRIGHT 2002 ACS T.4 Functional alterations of the mitochondrially encoded ND4 subunit ΤI associated with Leber's hereditary optic neuropathy ANSWER 79 OF 123 CAPLUS COPYRIGHT 2002 ACS T.4 Method of preventing NMDA receptor complex-mediated neuronal damage with ΤI nitroso compound ANSWER 80 OF 123 CAPLUS COPYRIGHT 2002 ACS L4Time-resolved fluorometry in the diagnosis of Leber hereditary optic ΤI neuroretinopathy ANSWER 81 OF 123 CAPLUS COPYRIGHT 2002 ACS L4 Sequence homology of NADH CoQ reductase subunit IV with ΤI nucleotide-requiring enzymes ANSWER 82 OF 123 CAPLUS COPYRIGHT 2002 ACS T.4 тт Scale-inhibiting agents for vinyl chloride-type compound polymerization apparatus ANSWER 83 OF 123 CAPLUS COPYRIGHT 2002 ACS T.4 Nonviability of cells with oxidative defects in galactose medium: a ΤI screening test for affected patient fibroblasts ANSWER 84 OF 123 CAPLUS COPYRIGHT 2002 ACS L4Leber's hereditary optic neuropathy and complex I deficiency in muscle ΤI ANSWER 85 OF 123 CAPLUS COPYRIGHT 2002 ACS L4 ΤI Leber hereditary optic neuropathy: identification of the same mitochondrial NDI mutation in six pedigrees ANSWER 86 OF 123 CAPLUS COPYRIGHT 2002 ACS T.4 Identification and characterization of the enzymic activity of ΤI .zeta.-crystallin from guinea pig lens. A novel NADPH:quinone oxidoreductase ANSWER 87 OF 123 CAPLUS COPYRIGHT 2002 ACS L4Electron transfer properties of NADH: ubiquinone reductase in the TI ND1/3460 and the ND4/11778 mutations of the Leber hereditary optic neuroretinopathy (LHON) ANSWER 88 OF 123 CAPLUS COPYRIGHT 2002 ACS L4Leber hereditary optic neuropathy: involvement of the mitochondrial ND1 ΤТ gene and evidence for an intragenic suppressor mutation ANSWER 89 OF 123 CAPLUS COPYRIGHT 2002 ACS L4Biochemical and molecular aspects of human mitochondrial respiratory TIchain disorders ANSWER 90 OF 123 CAPLUS COPYRIGHT 2002 ACS L4Spontaneous Kearns-Sayre/chronic external ophthalmoplegia plus syndrome TI associated with a mitochondrial DNA deletion: a slip-replication model and metabolic therapy ANSWER 91 OF 123 CAPLUS COPYRIGHT 2002 ACS T.4 Antiglaucoma pharmaceuticals containing xanthine oxidase inhibitors and TI free radical scavengers and iron chelating agents ANSWER 92 OF 123 CAPLUS COPYRIGHT 2002 ACS L4

Mitochondrial DNA polymorphism in Finnish families with Leber's hereditary optic neuroretinopathy ANSWER 93 OF 123 CAPLUS COPYRIGHT 2002 ACS **L4** A defect in mitochondrial electron-transport activity (NADHтT coenzyme Q oxidoreductase) in Leber's hereditary optic neuropathy ANSWER 94 OF 123 CAPLUS COPYRIGHT 2002 ACS L4 Kinetics, binding constant, and activation energy of the 48-kDa TI protein-rhodopsin complex by extra-metarhodopsin II ANSWER 95 OF 123 CAPLUS COPYRIGHT 2002 ACS L4 Studies on the optimized requirement of daily protein intake. A basic TТ enzymological study on the regulation of endogenous arginine synthesis ANSWER 96 OF 123 CAPLUS COPYRIGHT 2002 ACS T.4 Brain and optic system pathology in hypocholesterolemic dogs treated with a competitive inhibitor of 3-hydroxy-3-methylglutaryl coenzyme A reductase ANSWER 97 OF 123 CAPLUS COPYRIGHT 2002 ACS L4Actions of coenzyme Q10 on sympathetic pre- and post-synaptic TΙ sites in the heart. Especially, prevention and protection on cardiac injury after tooth extraction in guinea pigs ANSWER 98 OF 123 CAPLUS COPYRIGHT 2002 ACS L4 Experimental studies on antioxidative effect of coenzyme Q10 on TΙ the retina ANSWER 99 OF 123 CAPLUS COPYRIGHT 2002 ACS L4Antioxidant activity of coenzyme Q10 in the retina. TΤ ANSWER 100 OF 123 CAPLUS COPYRIGHT 2002 ACS L4A barrier to lateral diffusion of porphyropsin in Necturus rod outer ΤI segment disks ANSWER 101 OF 123 CAPLUS COPYRIGHT 2002 ACS L4Studies on the effect of coenzyme Q10 against oxidation in the TΙ retina ANSWER 102 OF 123 CAPLUS COPYRIGHT 2002 ACS L4Nonpolar lipid methylation. Identification of nonpolar methylated products synthesized by rat basophilic leukemia cells, retina, and parotid ANSWER 103 OF 123 CAPLUS COPYRIGHT 2002 ACS L4Lateral diffusion of rhodopsin in photoreceptor cells measured by ΤI fluorescence photobleaching and recovery ANSWER 104 OF 123 CAPLUS COPYRIGHT 2002 ACS L4Glucose metabolism in the cornea and lens in elasmobranchs, teleosts and TImammals: response to thiol-oxidation ANSWER 105 OF 123 CAPLUS COPYRIGHT 2002 ACS L4Ionic and metabolic requirements for high-affinity choline uptake and TIacetylcholine synthesis in nerve terminals at a neuromuscular junction ANSWER 106 OF 123 CAPLUS COPYRIGHT 2002 ACS L4

- TI Effects of variations in the perfusate on the ERG and discharge of ganglion cells in carp retina
- L4 ANSWER 107 OF 123 CAPLUS COPYRIGHT 2002 ACS
- TI Oxygen consumption in the developing chick cornea
- L4 ANSWER 108 OF 123 CAPLUS COPYRIGHT 2002 ACS
- TI Visual pigment changes in rainbow trout in response to temperature
- L4 ANSWER 109 OF 123 CAPLUS COPYRIGHT 2002 ACS
- TI Mechanism of chloroquine transport in the isolated retina
- L4 ANSWER 110 OF 123 CAPLUS COPYRIGHT 2002 ACS
- TI Contribution of secretion and filtration to aqueous humor formation
- L4 ANSWER 111 OF 123 CAPLUS COPYRIGHT 2002 ACS
- TI Effects of temperature on axonal transport and turnover of protein in goldfish optic system
- L4 ANSWER 112 OF 123 CAPLUS COPYRIGHT 2002 ACS
- TI Efflux of sodium-22 and rubidium-86 from the crystalline lens
- L4 ANSWER 113 OF 123 CAPLUS COPYRIGHT 2002 ACS
- TI Pectin methyl esterase activity in Southern peas (Vigna sinensis)
- L4 ANSWER 114 OF 123 CAPLUS COPYRIGHT 2002 ACS
- TI Metabolism of zinc-65 in euphausiids
- L4 ANSWER 115 OF 123 CAPLUS COPYRIGHT 2002 ACS
- TI **Ubiquinone** in the retina
- L4 ANSWER 116 OF 123 CAPLUS COPYRIGHT 2002 ACS
- TI Selenium and coenzyme Q10 levels in the tissues of dystrophic and healthy calves
- L4 ANSWER 117 OF 123 CAPLUS COPYRIGHT 2002 ACS
- TI Dark-adaptation processes in the rhodopsin rods of frog's retina
- L4 ANSWER 118 OF 123 CAPLUS COPYRIGHT 2002 ACS
- TI Cytochemical localization of redox compounds in isolated bovine retinal outer segment disks
- L4 ANSWER 119 OF 123 CAPLUS COPYRIGHT 2002 ACS
- TI Preliminary observations on the lipids of bovine retinal outer segment disks
- L4 ANSWER 120 OF 123 CAPLUS COPYRIGHT 2002 ACS
- TI The distribution of ions in the smooth muscle of the guinea pig taenia coli.
- L4 ANSWER 121 OF 123 CAPLUS COPYRIGHT 2002 ACS
- TI Cytochemical localization of ubiquinones in the retina
- L4 ANSWER 122 OF 123 CAPLUS COPYRIGHT 2002 ACS
- TI Oxygen consumption of the insect retina in the light and darkness
- L4 ANSWER 123 OF 123 CAPLUS COPYRIGHT 2002 ACS
- TI The effect of temperature upon facet number in the bar-eyed mutant of Drosophila. III

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=> d bib ab 2 13 18 19 22 33 34 39 47 49 62 74 98 99 101
L4
     ANSWER 2 OF 123 CAPLUS COPYRIGHT 2002 ACS
     2002:481193 CAPLUS
AN
     137:24302
DN
     Use of ubiquinone for production of an agent for prevention and
ΤI
     treatment of senile macular degeneration
     Brancato, Rosario; Lenaz, Giorgio; Blasi, Maria Antonietta; Simonelli,
IN
     Emanuele
PA
     Italy
     Ital., 27 pp.
SO
     CODEN: ITXXBY
DT
     Patent
     Italian
ΤÆ
FAN.CNT 1
                     KIND DATE
                                          APPLICATION NO. DATE
     PATENT NO.
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                                           ______
                      B1 20000316
PΙ
     TT 1299578
                                         IT 1998-RM494
                                                           19980724
     The present invention refers to the use of ubiquinones
AB
     (including coenzyme Q10) for manuf. of pharmaceuticals which can
     be used to prevent or treat macular degeneration assocd. with old age.
     The dosage of ubiquinone should exceed 20 mg/day. Macular
     degeneration appears to result from active oxygen activity in the retina,
     and the antioxidant activity of coenzyme Q10 appears to be able
     to counteract this.
     ANSWER 13 OF 123 CAPLUS COPYRIGHT 2002 ACS
T.4
AN
     2001:935374 CAPLUS
DN
     136:42890
     Topical pharmaceutical composition containing water-insoluble and/or
TI
     sparingly water-soluble drugs
     Kloecker, Norbert
IN
     Audit Institute for Medical Services and Quality Assurance G.m.b.H.,
PA
     Germany
SO
     PCT Int. Appl., 12 pp.
     CODEN: PIXXD2
DТ
     Patent
LA
     German
FAN.CNT 2
                     KIND DATE
                                          APPLICATION NO. DATE
     PATENT NO.
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                                          ______
                            2001/12/27
    WO 2001097774
                      A2
                                         WO 2001-EP7036 2001/06/21
PΙ
     WO 2001097774
                      A3
                            20020620
        W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN,
             CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH,
             GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR,
             LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, PL, PT,
             RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, TZ, UA, UG, (US)
        UZ, VN, YU, ZA, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM

KRW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZW, AT, BE, CH, CY,
            DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, TR, BF,
            BJ, CF, CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG
                                          DE 2000-10030378 20000621
     DE 10030378
                           20020314
                      A1
PRAI DE 2000-10030378 A
                           20000621
     The invention relates to a topical pharmaceutical compn. for the
     application to the eye, comprising at least 1 water-insol. or
     sparingly water-sol. drug dissolved in neutral oil. The compn. can be
     filtered under sterile conditions and is stable. The pharmaceutical
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compn. can be applied to the eye and the surrounding mucous

membranes and tissues by means of devices that produce an exactly defined dose and no preservatives and/or emulsifiers have to be added. Thus, 193 mg scopolamine was dissolved in 100 mL Miglyol-840 and the oily soln. was filtered and can be used for the topical application.

ANSWER 18 OF 123 CAPLUS COPYRIGHT 2002 ACS 2001:396683 CAPLUS 135:10033

APPLICATION NO. DATE

DN 135:10033
TI **Ubiquinone Q10** for a local treatment and prevention of ophthalmological pathologies following photorefractive therapy, refractive surgery and exposure to ultraviolet radiation

The Branch Bosonia: Capagiali Sorgia: Saettone Margo Fabricia

IN Brancato, Rosario; Capaccioli, Sergio; Saettone, Marco Fabrizio; Schiavone, Nicola

KIND DATE

PA Simonelli, Giuseppe, Italy

SO PCT Int. Appl., 34 pp. CODEN: PIXXD2

DT Patent

LA English

PATENT NO.

FAN.CNT 1

L4 AN

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    WO 2001037851
                      A2
                           20010531
                                          WO 2000-IT434
                                                           20001030
PΤ
                      A3
    WO 2001037851
                           20020321
           AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN,
            CR, CU, CZ, DE, DK, DM, DZ, EE, ES, FI, GB, GD, GE, GH, GM, HR,
            HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT,
            LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, PL, PT, RO, RU,
            SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, TZ, UA, UG, US, UZ, VN,
            YU, ZA, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM
        RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZW, AT, BE, CH, CY,
            DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ,
             CF, CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG
    IT 1307281
                     В1
                          20011030
                                          IT 1999-RM719
                                          EP 2000-974804
    EP 1231909
                      A2
                           20020821
                                                           20001030
            AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT,
        R:
            IE, SI, LT, LV, FI, RO, MK, CY, AL
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PRAI IT 1999-RM719 A 19991125 WO 2000-IT434 W 20001030

AB In the treatment of ophthalmol. pathologies in general and in particular in the treatment and prevention of side-effects on eye following photorefractive therapy (PRK), laser-assisted in situ keratomileusis (LASIK) and exposure to solar light and UV radiation, ubiquinone Q10 is utilized in a collyrium pharmaceutical prepn. for ocular topical administration thereof. Thus, a formulation contained ubiquinone 0.20, tocopherol 0.04, PEG-PPG copolymer 10.00, modified castor oil 5.00, NaCl 0.45, benzalkonium chloride 0.01, and

qs to 100.0%.

L4 ANSWER 19 OF 123 CAPLUS COPYRIGHT 2002 ACS

AN 2001:300514 CAPLUS

DN 134:331617

water

TI Oil-in-water emulsion compositions for polyfunctional active ingredients

IN Chen, Feng-jing; Patel, Mahesh V.

PA Lipocine, Inc., USA

SO PCT Int. Appl., 82 pp.

CODEN: PIXXD2

DT Patent

LA English

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FAN.CNT 1
     PATENT NO.
                      KIND
                           DATE
                                           APPLICATION NO. DATE
                                           _____
                      - - - -
                                                            -----
                            2001/04/26
     WO 2001028555
                                           WO 2000-US28835 20001018
PΤ
                       A1
             AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN,
             CR, CU, CZ, DE, DK, DM, DZ, EE, ES, FI, GB, GD, GE, GH, GM, HR,
             HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT,
             LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, PL, PT, RO, RU,
             SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, TZ, UA, UG, UZ, VN, YU,
             ZA, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM
         RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZW, AT, BE, CH, CY,
             DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ,
             CF, CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG
     US 2002107265
                     _A1___20020808
                                          US 1999-420159.
    US 1999-420159
                       Α
                           1999/10/18
AB
     Pharmaceutical oil-in-water emulsions for delivery of polyfunctional
     active ingredients with improved loading capacity, enhanced stability,
and
     reduced irritation and local toxicity are described. Emulsions include
an
     aq. phase, an oil phase comprising a structured triglyceride, and an
     emulsifier. The structured triglyceride of the oil phase is
substantially
     free of triglycerides having three medium chain (C6-C12) fatty acid
     moieties, or a combination of a long chain triglyceride and a
     polarity-enhancing polarity modifier. The present invention also
provides
     methods of treating an animal with a polyfunctional active ingredient,
     using dosage forms of the pharmaceutical emulsions. For example, an
     emulsion was prepd., with cyclosporin A as the polyfunctional active
     ingredient dissolved in an oil phase including a structured triglyceride
     (Captex 810D) and a long chain triglyceride (safflower oil). The compn.
     contained (by wt.) cyclosporin A 1.0, Captex 810D 5.0, safflower oil 5.0,
     BHT 0.02, egg phospholipid 2.4, dimyristoylphosphatidyl glycerol 0.2,
     glycerol 2.25, EDTA 0.01, and water up to 100%, resp.
              THERE ARE 6 CITED REFERENCES AVAILABLE FOR THIS RECORD
RE.CNT
              ALL CITATIONS AVAILABLE IN THE RE FORMAT
     ANSWER 22 OF 123 CAPLUS COPYRIGHT 2002 ACS
L4
AN
     2001:79062 CAPLUS
DN
     135:32250
TI
     Does coenzyme Q10 play a role in opposing oxidative stress in
     patients with age-related macular degeneration?
     Blasi, Maria Antonietta; Bovina, Carla; Carella, Giuseppe; Genova, Maria
ΑU
     Luisa; Jansen, Anna M. A.; Lenaz, Giorgio; Brancato, Rosario
CS
     Department of Ophthalmology, University of L'Aquila, L'Aquila, Italy
     Ophthalmologica (2001), 215(1), 51-54
SO
     CODEN: OPHTAD; ISSN: 0030-3755
PB
     S. Karger AG
DT
     Journal
     English
LA
     To seek some specific biochem. markers of age-related macular
AB
degeneration
     (AMD), coenzyme Q10 (CoQ10) levels were detd. in plasma and
     platelets from 19 exudative AMD patients and 19 age-matched controls.
     Lipid peroxidn. was followed in plasma in vitro after the addn. of a free
     radical initiator. Most patients had lower plasma CoQ10 content than
most
     controls. Plasma from controls showed greater capacity to oppose the
     oxidative damage. These results support the concept that free radicals
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play a pathogenic role in AMD and that CoQ10 may have a protective effect. THERE ARE 16 CITED REFERENCES AVAILABLE FOR THIS RECORD RE.CNT 16 ALL CITATIONS AVAILABLE IN THE RE FORMAT ANSWER 33 OF 123 CAPLUS COPYRIGHT 2002 ACS L42000:335023 CAPLUS AN DN 132:339428 Defined serum-free medical solution for ophthalmology ΤI Skelnik, Debra A. INBausch and Lomb Surgical, Inc., USA PA Eur. Pat. Appl., 27 pp. SO CODEN: EPXXDW Patent DТ English LA FAN.CNT 1 APPLICATION NO. DATE PATENT NO. KIND DATE \_\_\_\_\_\_ A1 20000517 EP 1000541 PΙ EP 1999-308702 19991102 R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO US 1998-186580 19981105 20001128 US 6153582 Α 20000511 AU 1999-57108 19991028 AU 9957108 A1 JP 1999-313063 JP 2000198701 A2 20000718 19991102 PRAI US 1998-186580 19981105 Α The title soln. contains one or more cell nutrient supplements and a AΒ growth factor which maintains and enhances the preservation of eye tissues, including human corneal, retinal, and corneal epithelial tissues at low to physiol. temp. (2-38.degree.). This soln. is composed of a defined aq. nutrient and electrolyte soln., supplemented with glycosaminoglycans, deturgescent agents, energy sources, buffer systems, antioxidants, membrane stabilizers, antibiotics, antimycotics, ATP or energy precursors, nutrient cell supplements, nonessential amino acids, trace minerals, trace elements, and growth factors. THERE ARE 2 CITED REFERENCES AVAILABLE FOR THIS RECORD RE.CNT 2 ALL CITATIONS AVAILABLE IN THE RE FORMAT ANSWER 34 OF 123 CAPLUS COPYRIGHT 2002 ACS L42000:277847 CAPLUS AN 132:298849 DN Ubiquinone-containing composition suitable for promoting TI enhanced intramitochondrial transport Feher, Janos; Sears, Grazia IN Sigma-Tau Healthscience S.p.A., Italy PAPCT Int. Appl., 21 pp. SO CODEN: PIXXD2 DT Patent LA English FAN.CNT 1 APPLICATION NO. DATE PATENT NO. KIND DATE \_\_\_\_\_\_ ----200004/27 WO 1999-IT331 19991019 PΙ WO 2000/023069 A1 W: AE, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, CA, CH, CN, CU, CZ, DE, DK, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MD, MG, MK, MN, MW, MX, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, UA, UG, US, UZ, VN, YU, ZA, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM RW: GH, GM, KE, LS, MW, SD, SL, SZ, TZ, UG, ZW, AT, BE, CH, CY, DE,

DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF,

CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG IT 1304406 B1 20010319 IT 1998-B0596 19981021 IT 98B00596 A1 20000421 EP 1999-954343 19991019 EP 1123093 A1 20010816 AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO 200105/23 US 2001-807918 US 6417233 B1 20020709 Α PRAI IT 1998-B0596 19981021 WO 1999-IT331 W 19991019 A compn. comprises a lipid-sol. benzoquinone, e.g., coenzyme Q10 AB and at least 1 .omega.-3 polyunsatd. fatty acid selected from the group consisting of eicosapentaenoic acid (EPA), docosahexaenoic acid (DHA) and linoleic acid (LNA), for the prevention and/or treatment of mitochondriopathy. Thus, capsules contained EPA 148.72, DHA 105.82, LNA 31.46, coenzyme Q10 10.00, proteins 137.00, and carbohydrates 63.00 mg. Thus, coenzyme Q10 + vitamin E in a vehicle of highly concd. polyunsatd. fatty acids improved retinal function, primarily the regeneration of photoreceptor cells in normal conditions and in diseases states. THERE ARE 6 CITED REFERENCES AVAILABLE FOR THIS RECORD RE.CNT 6 ALL CITATIONS AVAILABLE IN THE RE FORMAT ANSWER 39 OF 123 CAPLUS COPYRIGHT 2002 ACS Ь4 1999:667869 CAPLUS AN DN 131:307081 In vitro testing of antioxidants and biochemical end-points in bovine TI retinal tissue ΑU Chida, Miho; Suzuki, K.; Nakanishi-Ueda, T.; Ueda, T.; Yasuhara, H.; Koide, R.; Armstrong, D. Department Ophthalmology, School Medicine, Showa Univ., Tokyo, 142, Japan CS Ophthalmic Research (1999), 31(6), 407-415 SO CODEN: OPRSAQ; ISSN: 0030-3747 PB S. Karger AG Journal DT LA English Lipid peroxidn. in aliquots of bovine retina (without rod outer segments, AB ROS), purified ROS, and retinal pigment epithelium (RPE) was initiated with 5 mM ferric iron and 80 mM ADP. After 30 min of oxidn. at 37.degree., the concn. of thiobarbituric-acid-reacting substances (TBARS) which approximates lipid hydroperoxide (LHP), increased in the ROS from 2.0 to 90.2 nmol malondialdehyde (MDA)/mg protein and in the RPE from 0.54 to 51.5 nmol MDA/mg protein. 16 Lipid and aq. antioxidants (AOX) from natural or synthetic sources, including 5 flavonoids, were evaluated for their ability to inhibit the oxidative reaction. Palm-oil-derived vitamin E showed protection in retina, ROS, and RPE (64, 68, and 74%, resp). Of the flavonoids tested, good protection in the retina was found at 10-5  $\mbox{M}$ for epigallocatechin gallate (50%) and at 50 ng/mL for pycnogenol (61%) and catechin (52%). When catechin and palm oil vitamin E, catechin and coenzyme Q10 or coenzyme Q10 and pycnogenol were combined, the individual effect was enhanced. TBARS as an indirect measure of LHP level and Hb-methylene blue detn. for direct LHP were used as alternative end-point detns. of lipid peroxidn. These measure different aspects of AOX reactions. The results demonstrate the usefulness of an in vitro model system that can rapidly and accurately det. the capacity of a single AOX against lipid peroxidn. or be used to

THERE ARE 34 CITED REFERENCES AVAILABLE FOR THIS RECORD

ALL CITATIONS AVAILABLE IN THE RE FORMAT

show synergistic efficacy.

RE.CNT 34

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ANSWER 47 OF 123 CAPLUS COPYRIGHT 2002 ACS
L4
ΑN
     1999:184117 CAPLUS
DN
     130:213657
     Oral liposomal delivery system
TI
     Keller, Brian C.
IN
PΑ
     Biozone Laboratories, Inc., USA
     PCT Int. Appl., 15 pp.
SO
     CODEN: PIXXD2
DT
     Patent
     English
LΆ
FAN.CNT 1
     PATENT NO.
                    KIND DATE
                                         APPLICATION NO. DATE
                    ____
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                    A1
                         19990311
                                         WO 1998-US18475 19980904
PΙ
     WO 9911242
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        RW: AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL,
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                           19990311
                                          CA 1998-2303200 19980904
     CA 2303200
                      AΑ
     AU 9892216
                           19990322
                                          AU 1998-92216
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                      A1
                         20000621
                                          EP 1998-944753
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                           20010911
                                          JP 2000-508345
                                                          19980904
     JP 2001514209
                           20020404
                                          US 1998-148499
                                                          19980904
     US 2002039595
                      A1
                           19970904
PRAI US 1997-57819P
                     P
                           19980904
     WO 1998-US18475 W
     A liposome-capsule dosage unit system for the delivery of a biol. active
AB
     material is formed by encapsulating a biol. active material in liposomes
     and then placing the liposome encapsulated material into a capsule. The
     capsule is typically a soft gel capsule or a two piece capsule capable of
     tolerating a certain amt. of water. A less water tolerant capsule can be
     employed if the liposomes are dehydrated prior to placement within the
     capsule. Biol. active materials include drugs, nutritional supplements,
     vitamins, minerals, enzymes, hormones, proteins, and polypeptides.
     system is esp. suitable for the delivery of materials with poor oral
     soly., materials that are not absorbed or are poorly absorbed from the
     gastrointestinal tract, and materials that have conventionally been given
     by an invasive route. The system can be administered orally,
     intra-ocularly, intranasally, rectally, or vaginally. Liposomes contg.
     water 10, cyanocobalamine 0.345, Phospholipon 90H 3, cholesterol 2,
    vitamin E 1, benzyl alc. 1, propylene glycol 82.655 % were prepd. using
an
     injection method. The liposome mixts. were drawn into a syringe and
     injected into the open end of soft gelatin capsules, then sealed with
     tweezers.
             THERE ARE 3 CITED REFERENCES AVAILABLE FOR THIS RECORD
RE.CNT 3
             ALL CITATIONS AVAILABLE IN THE RE FORMAT
    ANSWER 49 OF 123 CAPLUS COPYRIGHT 2002 ACS
L4
     1998:542962 CAPLUS
AN
DN
     129:166230
     Compositions and methods for prevention and treatment of vascular
ΤI
     degenerative diseases
IN
     Kosbab, John V.
PA
    USA
SO
     PCT Int. Appl., 62 pp.
     CODEN: PIXXD2
DT
     Patent
LA
    English
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FAN.CNT 1
     PATENT NO.
                      KIND
                            DATE
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PΙ
     WO 9833494
                       Α1
                            19980806
                                           WO 1998-US2005
                                                            19980204
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             DK, EE, ES, FI, GB, GE, GH, GM, GW, HU, ID, IL, IS, JP, KE, KG,
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             NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT,
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                       A1
                            19980825
                                           AU 1998-61414
                                                            19980204
     AU 9861414
                            20000726
                                           EP 1998-906094
                                                            19980204
     EP 1021177
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             AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT,
             IE, FI
                            20010807
                                           JP 1998-533193
                                                            19980204
     JP 2001511153
     US 2001031744
                       Α1
                            20011018
                                           US 2001-827251
                                                            20010405
PRAI US 1997-37084P
                       Ρ
                            19970204
     US 1997-43262P
                       Ρ
                            19970417
     US 1998-18273
                       В1
                            19980204
     WO 1998-US2005
                       W
                            19980204
     This invention relates to nutrient and therapeutic compns. for treatment
AB
     and prevention of symptoms and disease conditions assocd. with
     microangiopathy and macroangiopathy and to methods using the compns.
     particular, the invention relates to compns. useful in the treatment of
     diabetic retinopathy and nephropathy, to compns. useful in the treatment
     of other retinal disorders including macular degeneration and cataracts,
     to compns. useful in wound healing, to compns. useful for treatment and
     prevention of neuropathy, to compns. useful for treatment and prevention
     of cardiovascular disease and to compns. useful for the treatment and
     prevention of dental and periodontal disorders. An exemplary diabetic
     compn. contains bilberry ext., Ca (Krebs), chondroitin sulfate, Cr
     picolinate, Co Q10, Fenugreek seed powder, Flax seed powder,
     folic acid, linoleic acid, Ginkgo biloba, Gymnema sylvestre, taurine (or
     homotaurine), grape seed ext., acetyl L-carnitine, lutein, Mg (Krebs),
     N-acetyl-L-cysteine, pine bark ext., phytosterol complex, K citrate,
     protamine sulfate, shark cartilage, soy isolate, green tea polyphenols,
     vitamin A, vitamin B2, vitamin B6, vitamin B12, vitamin C, vitamin E, and
     Zn (Krebs).
              THERE ARE 6 CITED REFERENCES AVAILABLE FOR THIS RECORD
RE.CNT
       6
              ALL CITATIONS AVAILABLE IN THE RE FORMAT
     ANSWER 62 OF 123 CAPLUS COPYRIGHT 2002 ACS
L4
     1997:155050 CAPLUS
AN
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DN 126:162270

TI High dosage lutein and zeaxanthin for macula therapy

IN Howard, Alan Norman; Bone, Richard Andrew; Landrum, John Thomas

PA Howard Foundation, UK

SO Brit. UK Pat. Appl., 45 pp.

CODEN: BAXXDU

DT Patent

LA English

FAN.CNT 4

112110111 1					
	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
			<b>-</b>		
ΡI	GB 2301775	<b>A</b> 1	19961218	GB 1996-11967	19960607
	GB 2301775	B2	19990804		
	CA 2224217	AA	19961219	CA 1996-2224217	19960607
	US 6218436	B1	20010417	US 1996-774052	19961223

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US 2001-796522
                                                         20010302
    US 2001009926
                     A1
                          20010726
    US 6329432
                     B2
                          20011211
PRAI US 1995-487627
                     Α
                          19950607
    GB 1996-4221
                     Α
                          19960228
    GB 1993-13266
                     Α
                          19930628
    US 1994-219897
                     B2
                         19940330
    US 1994-266768 B2
                          19940628
    GB 1996-11967
                     Α
                          19960607
    WO 1996-GB1368
                     A2
                          19960607
    US 1996-774052
                     A2
                          19961223
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The carotenoids lutein and zeaxanthin are used sep. or in combination to treat age-related macular degeneration (AMD). The carotenoids are administered in the form of a pharmaceutical prepn., e.g. capsule or alternatively as a food e.g. a genetically engineered tomato producing enhanced levels of carotenoid. High dosages of lutein and zeaxanthin are needed to ensure high serum levels necessary for take up of the carotenoids by the macula.

- L4 ANSWER 74 OF 123 CAPLUS COPYRIGHT 2002 ACS
- AN 1995:773695 CAPLUS
- DN 123:195754
- TI Effect of diabetes and dietary **ubiquinone** supplementation on the post-translational modification of rat lens .beta.L crystallin
- AU Jones, Richard H. V.; Gronboek, Henning; Kunjara, Sirilaksana; Flyvbjerg,
- CS Department of Molecular Pathology, University College London Medical School, London, W1P 6DB, UK
- SO Biochemical and Molecular Medicine (1995), 55(2), 96-104 CODEN: BMMEF4; ISSN: 1077-3150
- PB Academic
- DT Journal
- LA English
- AB The effect of streptozocin diabetes of 14 days duration on the integrity of lenticular crystallins has been detd. by the measurement of characteristic markers of protein modification in the lens crystallins of rats. Further, the susceptibility of the crystallins to modification has also been detd. by measurement of the same markers after the application of a metal-catalyzed oxidative insult in vitro. The results show that

the

previously reported increased post-translational modification of lens crystallins in vivo and increased susceptibility to modification in vitro of diabetic crystallins after 21 days of uncontrolled diabetes are also evident after just 14 days of diabetes. Treatment of the diabetic animals

with the antioxidant **ubiquinone** by dietary supplementation was unable to prevent the post-translational modifications sustained by the crystallin when subjected to diabetes in vivo or the increase in susceptibility to an in vitro oxidative stress. While the present results

support the proposal that cataract formation is initiated by protein post-translational modification factors such as glycation, **ubiquinone** supplementation does not appear to be beneficial in the inhibition of post-translational crystallin modification in diabetic cataractogenesis.

- L4 ANSWER 98 OF 123 CAPLUS COPYRIGHT 2002 ACS
- AN 1986:28809 CAPLUS
- DN 104:28809
- TI Experimental studies on antioxidative effect of coenzyme Q10 on the retina

AU Kuwayama, Masami

CS Med. Sch., Nagoya City Univ., Nagoya, 467, Japan SO Nagoya Medical Journal (1984), 29(3-4), 137-47

CODEN: NMJOAA; ISSN: 0027-7649

DT Journal LA English

AB The lipid peroxide level in the chick retina was examd. in vitro and in vivo to verify the antioxidative effect of coenzyme Q10 (CoQ10) [303-98-0]. The levels of CoQ10 in the retina, liver, and heart were

8.4, 82.3, and 74.9 .mu.g/g wet wt., resp. In suspensions of retina only, CoO10 exhibited no antioxidative effects, but in the retina mixed with chick heart mitochondria, CoQ10 showed marked inhibition of lipid peroxidn. as strong as that by dl-.alpha.-tocopherol [2074-53-5]. CoQ10 can act as an antioxidant in mitochondria, and the antioxidative effect of CoQ10 displays organ specificity. Kittens were aministered a high concn. (70%) of O for 48 h from day 3 after birth. In kittens s.c. administered 10 mg of CoQ10 (group A), retinopathy of prematurity (ROP) was detected in 18 of 22 eyes. In kittens receiving an equal vol. of a vehicle placebo (group B), ROP was detected in 13 of 14 There was no significant difference between groups A and B. In kittens given 5 mg of CoQ10 and 12.5 mg of tocopherol acetate, ROP was seen in only 11 of 46 eyes. In kittens administered an equal vol. of a vehicle placebo and 12.5 mg of tocopherol acetate, ROP was seen in 31 of 38 eyes. The retina in which ROP developed showed a higher level of lipid peroxide than that in the normal retina.

L4 ANSWER 99 OF 123 CAPLUS COPYRIGHT 2002 ACS

AN 1984:604135 CAPLUS

DN 101:204135

TI Antioxidant activity of coenzyme Q10 in the retina.

AU Kuwayama, Masami; Majima, Akio; Takada, Masahiro

CS Med. Sch., Nagoya City Univ., Nagoya, 467, Japan

SO Nippon Ganka Kiyo (1984), 35(5), 866-70 CODEN: NGKYA3; ISSN: 0015-5667

DT Journal

LA Japanese

AB Coenzyme Q10 [303-98-0], an antioxidant, administered at 10 mg/day s.c. for 14 days into cats with retinopathy had no significant therapeutic effects.

L4 ANSWER 101 OF 123 CAPLUS COPYRIGHT 2002 ACS

AN 1982:507690 CAPLUS

DN 97:107690

TI Studies on the effect of coenzyme **Q10** against oxidation in the retina

AU Kuwayama, Masami; Majima, Akio; Aritake, Toshiaki

CS Med. Sch., Nagoya City Univ., Nagoya, 467, Japan SO Nippon Ganka Kiyo (1982), 33(4), 637-41

Nippon Ganka Kiyo (1982), 33(4), 637-41 CODEN: NGKYA3; ISSN: 0015-5667

DT Journal

LA Japanese

AB Coenzyme Q10 (CoQ10), CoQ10 and NADPH, or dL-.alpha.-tocopherol, were administered to the retinas, livers, and hearts of chick embryos on day 14 of gestation in vitro and the lipid peroxide levels in each tissue were then measured. CoQ10 levels in the retinas, livers, and hearts of the chick embryos were detd. by high-speed liq. chromatog. with a UV absorption detector. The presence of CoQ10 or CoQ10 and NADPH did not inhibit the formation of lipid peroxides in the retina. The CoQ10 level in the liver was highest (82.3 .mu.g/g wet wt.), followed by that in the

heart (74.9 .mu.g/g wet wt.). The retina showed an extremely low level (8.4 .mu.g/g wet wt.). The dL-.alpha.-tocopherol markedly inhibited the formation of lipid peroxides in the retina, heart, and liver. The administration of CoQ10, CoQ10 and NADPH, or dL-.alpha.-tocopherol inhibited the elevation of lipid peroxide levels in the liver and the heart. Thus, the antioxidative effect of CoQ10 showed organ specificity. Accordingly, CoQ10 can serve as an antioxidant in the mitochondrion. Since the CoQ10 level was very low in the retina, this might explain why it is ineffective for the inhibition of retinal lipid peroxidn. when administered in vitro.

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d bib ab 1 2 T<sub>1</sub>12 ANSWER 1 OF 4 USPATFULL AN 2000:160979 USPATFULL Defined serumfree medical solution for ophthalmology TI Skelnik, Debra L., Cambridge, MN, United States IN Bausch & Lomb Surgical, Inc., St. Louis, MO, United States (U.S. PA corporation) US 6153582 20001128 PΤ 19981105 (9) US 1998-186580 AΙ Utility DT FS Granted Primary Examiner: Fay, Zohreh EXNAM Jaeger, Hugh D. LREP Number of Claims: 41 CLMN ECL Exemplary Claim: 1 1 Drawing Figure(s); 1 Drawing Page(s) DRWN LN.CNT 1409 CAS INDEXING IS AVAILABLE FOR THIS PATENT. A defined serumfree medical solution for applications in Ophthalmology, that contains one or more cell nutrient supplements, and a growth factor(s) which maintains and enhances the preservation of eye tissues, including human corneal, retinal and corneal epithelial tissues at low to physiological temperatures (2.degree. C. to 38.degree. C.). This solution is composed of a defined aqueous nutrient and electrolyte solution, supplemented with a glycosaminoglycan(s), a deturgescent agent(s), an energy source(s), a buffer system(s), an antioxidant(s), membrane stabilizing agents, an antibiotic(s) and/or antimycotic agent(s), ATP or energy precursors, nutrient cell supplements, coenzymes and enzyme supplements, nucleotide precursors, hormonal supplements, non-essential amino acids, trace minerals, trace elements and a growth factor(s). L12 ANSWER 2 OF 4 USPATFULL AN 97:14437 USPATFULL TIPharmaceutical carrier IN Morein, Bror, Uppsala, Sweden L ovgren, Karin, Uppsala, Sweden British Technology Group Limited, London, England (non-U.S. PA corporation) PΙ US 5603958 19970218 ΑI US 1995-455403 19950531 (8) Continuation of Ser. No. US 1994-142377, filed on 30 Mar 1994, now RLI abandoned PRAI SE 1991-1665 19910531 DTUtility Granted FS Primary Examiner: Kishore, Gollamudi S. EXNAM Nixon & Vanderhye LREP CLMN Number of Claims: 19 Exemplary Claim: 1 ECL 12 Drawing Figure(s); 6 Drawing Page(s) DRWN LN.CNT 923 CAS INDEXING IS AVAILABLE FOR THIS PATENT. The invention refers to the use of an inert, structure-giving, AB deadjuvanated matrix of a complex of a sterol, such as cholesterol, and one or more saponins as a carrier for the administration of a pharmaceutically active substance, and a drug carrying particle

comprising said inert structure-giving matrix to which has been

connected a pharmaceutically active substance. The drug carrying particle, delpha, has an annular basic structure which can form spherical nano particles having a size of 30-50 nm and a narrow size distribution.

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SINCE FILE

TOTAL

ENTRY

SESSION

FULL ESTIMATED COST

9.37

9.58

SESSION WILL BE HELD FOR 60 MINUTES
STN INTERNATIONAL SESSION SUSPENDED AT 14:08:17 ON 19 NOV 2002

L13 ANSWER 12 OF 12 WPIDS (C) 2002 THOMSON DERWENT AN1984-104277 [17] WPIDS DNC C1984-044331 ΤI Clathrate cpd. of coenzyme-Q-10 with methyl beta-cyclodextrin deriv. - has coenzyme-Q-10 activity but is soluble in water. DC B04 (ZERI) ZERIA SHINYAKU KOGYO KK PACYC 1 PΙ JP 59047202 A 19840316 (198417)\* 10p ADT JP 59047202 A JP 1982-157912 19820910 PRAI JP 1982-157912 19820910 AB JP 59047202 A UPAB: 19930925 Water-solubilised (or lyophilised) clathrate cpd. of coenzyme Q10

(CoQ10) with heptakis(2,6-di-O-methyl) -beta-cyclodextrin (DM-beta-CyD)

is

new.

Water solubilisation makes admin. as injection possible. When administered orally, the clathrate cpd. is absorbed well from the digestive organ. It may be used in injections, eye-lotions or oral prepns. in improvement of brain metabolism, asthenopia or liver function.

In an example, to a soln. of 100 g DM-beta-CyD in 1 l distilled water  $\,$ 

was added 1 g CoQ10 in small portions while dispersing with ultrasonic wave, and the mixt. was stirred at 22 deg.C on a water bath for 4 hrs. in dark. The resulting soln. was filtered through a membrane filter (pore size 0.22 microns) to give 0.1% aq. soln. of the clathrate cpd. 0/0

## => d his

L1

(FILE 'HOME' ENTERED AT 14:04:51 ON 19 NOV 2002)

FILE 'USPATFULL, USPAT2' ENTERED AT 14:05:01 ON 19 NOV 2002

158832 FILE USPATFULL

L2 1735 FILE USPAT2

TOTAL FOR ALL FILES

L3 160567 S OPHTHALMIC OR EYE

L4 6635 FILE USPATFULL

L5 103 FILE USPAT2

TOTAL FOR ALL FILES

L6 6738 S UBIQUINONE OR Q10 OR (COENZYME Q)

L7 457 FILE USPATFULL

L8 9 FILE USPAT2

TOTAL FOR ALL FILES

L9 466 S L6 AND L3

L10 4 FILE USPATFULL

L11 0 FILE USPAT2

TOTAL FOR ALL FILES L12 4 S L3 (P) L6

1 0 23 (1, 20

FILE 'WPIDS' ENTERED AT 14:09:41 ON 19 NOV 2002

L13 12 S L9

=> log hold

COST IN U.S. DOLLARS SINCE FILE TOTAL ENTRY SESSION

FULL ESTIMATED COST 32.18 41.76

SESSION WILL BE HELD FOR 60 MINUTES STN I